

ABSTRACT

5           A powder metal mixture comprises a lubricant powder conventionally used to  
produce powder metal parts in combination with a modified lubricant. A lubricant  
conventionally used to compact and sinter a chosen powder metal mixture is modified  
by adding to it starch particles smaller than the average metal particle, and optionally,  
micronized cellulose fibers in so small an amount that the modified lubricant is  
10 present in an amount less than 2% by weight of the mixture. The Hall apparent  
density and the Hall flow rate of a powder metal mixture made with the modified  
lubricant of starch or (starch + fibers) remains within the ranges deemed desirable for  
production of compacted powder metal parts. Using the modified lubricant in lieu of  
the conventional lubricant increases green strength of a part made by compacting the  
15 mixture and improves dimensional conformance.